

# BLACK

## BlackHawk for MAC Software User Guide

Products: BLK-DH2 Series and BLK-HD Series DVRs



Please read this manual before using your software, and always follow the instructions for safety and proper use. Save this manual for future reference.

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## SECTION 1

# Installation and Setup

### 1.1 About BlackHawk for MAC

**BlackHawk for MAC**, the network-based administrative interface to the DVR, is used with an Apple® Macintosh® OS X® computer to monitor and control the DVR across a network. It can be used to view live video, configure the DVR SETUP menus, and search for and watch recorded video. BlackHawk for MAC can display up to 16 video channels (live or recorded video) simultaneously.

#### 1.1.1 System requirements

To install and use the BlackHawk for MAC application, your Macintosh computer must have at least:

- **Operating system:** OS X 10.6 and above
- **CPU:** Intel® Core™2 Duo processors
- **RAM:** 2GB
- **VGA:** NVIDIA® or AMD ATI™ graphics interface

### 1.2 Getting started

To connect to your DVR, the DVR must be configured and connected to a network. The URL (internet address) to use with BlackHawk for MAC to connect to the DVR depends what network(s) your Apple Macintosh computer and DVR are connected to. You can determine the network settings of your computer and DVR using the following procedures.

#### 1.2.1 Finding the DVR network settings

To find the network settings of your DVR:

- a. Right click anywhere on the DVR desktop screen and then click **SETUP**.
- b. Enter your administrator password, if needed, to open the system setup menus.
- c. Click the NETWORK menu icon to see your network settings. **NOTE:** The local IP address and port number of your DVR may be different from that shown in the window below.

## SECTION 1: INSTALLATION AND SETUP



*System menu (left) and SETUP NETWORK menu (right)*

### 1.2.2 Finding your Apple Macintosh network settings

To find the network settings of your Apple Macintosh computer:

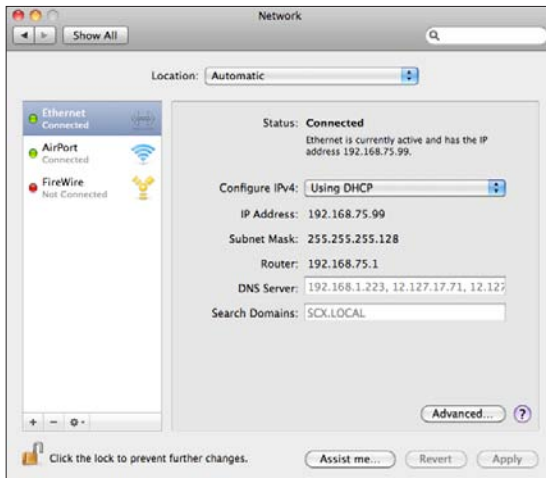
1. Click the “gear-like” **System Preferences** icon in the desktop dock.



2. In the System Preferences window, click the **Network** icon.



- Find the current network settings for your computer on the Network window. This window shows your network connection(s), your IP address(es), etc. The settings in the window for your computer will be different from the ones shown below.



### 1.2.3 Connecting to your DVR

Considering the network settings of your DVR and those of your computer, determine the best way to connect. For instance:

- **If your computer and DVR are on the same LAN** (connected to the same router), you can address your DVR in BlackHawk for MAC with the local IP address of your DVR. See the DVR NETWORK menu window above.
- **If you are accessing your DVR across the internet**, your DVR is may be addressed through a port forwarded by the router your DVR is connected to, or through a connection to a DDNS web service such as [ddnscenter.com](http://ddnscenter.com) (preferred). To use this service for accessing your DVR across the internet, refer to [ddnscenter.com](http://ddnscenter.com) for more information.
- **Other:** Depending on the network configuration of your computer and DVR, there may be other ways to addressing your DVR across the network. For more information, consult with the support organization provided by your vendor.

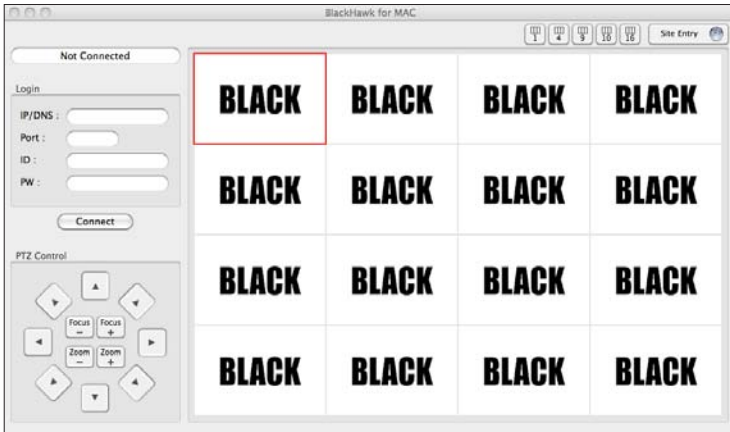
### 1.3 Installing and starting BlackHawk for MAC

The BlackHawk for MAC application is contained on the software disk provided with your system. To use the program:

1. Insert the software disk into the optical drive on your Macintosh computer.
2. Install the BlackHawk for MAC application using standard OS X installation procedures. When the installation is complete, the following icon will appear on the desktop.



3. Double-click the **BlackHawk for MAC** icon to start the application.





### 1.3.1 Connecting to your DVR

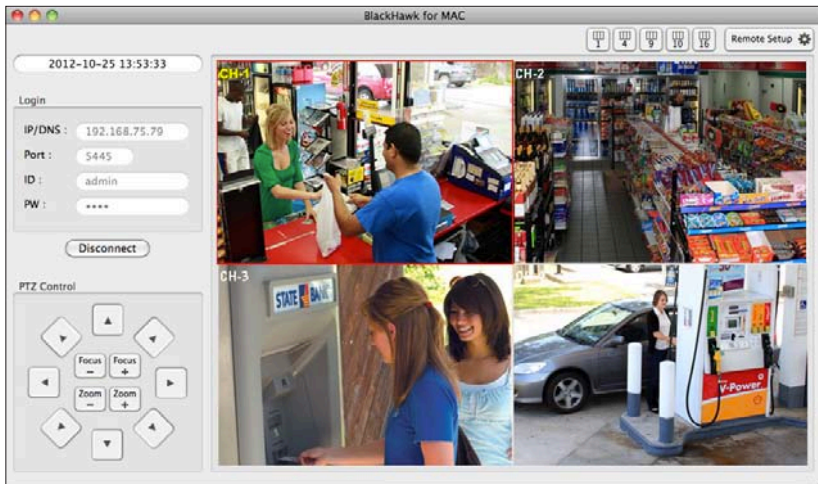
In the Login frame, enter the **IP/DNS** address of your DVR, the port number (usually 5445 by default), and your user **ID** and password (**PW**).

The image shows two states of the 'Login' window in the BlackHawk for MAC software. The left window is the initial state with empty text boxes for 'IP/DNS :', 'Port :', 'ID :', and 'PW :'. Below these is a 'Connect' button. The right window shows the same form after input: 'IP/DNS : 192.168.75.79', 'Port : 5445', 'ID : admin', and 'PW : \*\*\*\*'. The button has changed to 'Disconnect'.

After entering the appropriate information in the Login frame, click the **Connect** button. BlackHawk for MAC will connect to your DVR and open the “live” window.


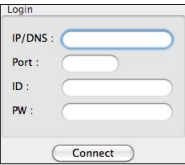
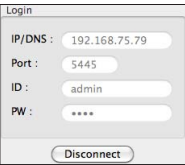



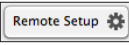

### 1.4 Live window

A typical Live window with a 4-channel display is shown below. Components of the window are described in the table below.



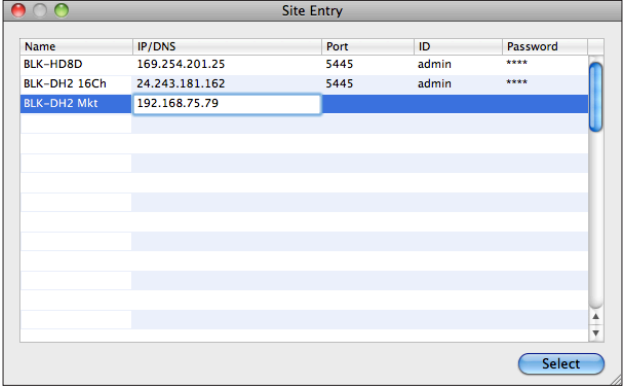
## SECTION 1: INSTALLATION AND SETUP

**Table 1. Live window controls**

Button	Description
<p>Time Display</p> 	<p>After connecting to the DVR, the date and time is displayed as following.</p>
<p>Login frame</p>  	<p>Enter the required information in each field, then click <b>Connect</b> to access DVR.</p>
<p>PTZ CONTROL</p> 	<p>Control the PTZ function of PTZ enabled cameras. Functions issued by the controls are passed to the camera of the channel selected in the "live" display.</p>
<p>CHANNEL SPLIT</p> 	<p>Click one of these buttons to select the number of channels displayed in the window (1 channel, 4 channel, 9 channels, etc.).</p>
<p>SITE ENTRY</p> 	<p>Click the icon and the window to register the number of site will be displayed. When the network connection is done, SITE ENTRY button is converted to REMOTE SETUP Button.</p>
<p>REMOTE SETUP</p> 	<p>Remote Setup Button. This button is converted from SITE ENTRY button when the network connection is done.</p>
<p>Window Control</p> 	<p><b>Red</b> – Close the window  <b>Yellow</b> – Minimize the window  <b>Green</b> – Toggles between normal size and full screen width</p>

### 1.4.1 Using Site Entry registration

The Site Entry feature allows you to preset login settings for different DVRs, then access those settings to connect easily and quickly. Click the **Site Entry** button to preset a login for your DVR.



To create a login entry, click a field on a line in the window, then enter the appropriate information for your DVR.

Click the line for the DVR you want to connect to, then click **Select**. The fields on the Login frame of the main window will be populated with the settings on the line you selected.

### NOTE

*If multiple users access the DVR through your Macintosh, and you want to restrict access to an administrator login, leave the password field blank on the Site Entry line and enter your password in the Login frame of the main window before clicking **Connect**.*

## 1.5 Closing the application

There are two ways to close the BlackHawk for MAC application:

1. Click the red ball in the upper left corner of the application window.



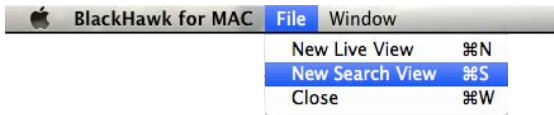
2. Open the drop-down list under the app name on the menu bar, then select **Quit BlackHawk for MAC**.



## SECTION 2

# Search and Playback Video

To access the search and playback features of BlackHawk for MAC, open a “Live” window, then in the menu bar, open the **File** drop-down list and select **New Search View**.



The **Search** window will open.

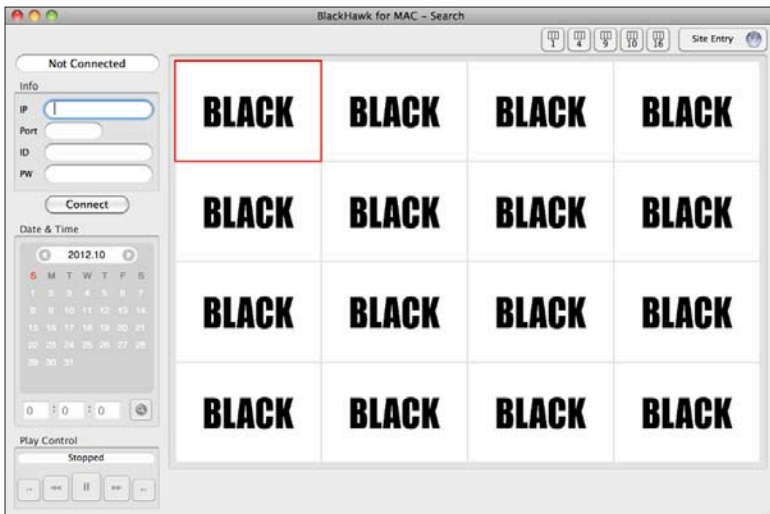

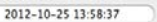
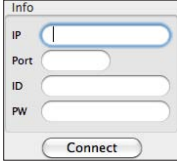
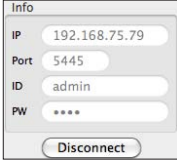
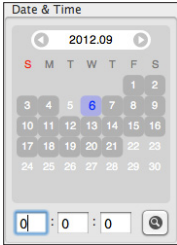
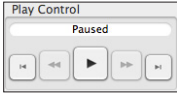

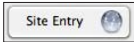
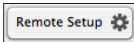



Table 2. Search window controls and indicators

Button	Description
Time Display	After connecting to the DVR, the date and time is displayed as following.
	

## SECTION 2: SEARCH AND PLAYBACK VIDEO

Button	Description
<p>Info frame</p>  <p>The Info frame contains input fields for IP, Port, ID, and PW, and a Connect button.</p>	<p>Enter the required information in each field, then click <b>Connect</b> to access DVR.</p>  <p>The Info frame with populated values: IP 192.168.75.79, Port 5445, ID admin, PW ****, and a Disconnect button.</p>
<p>Date &amp; Time</p>  <p>The Date &amp; Time frame shows a calendar for 2012.09. The days of the week are S, M, T, W, T, F, S. The calendar grid shows dates 1 through 30. The date 6 is selected (blue number). Below the calendar is a time selection area with fields for hour (0), minute (0), and second (0), and a search icon.</p>	<p>The Date &amp; Time frame indicates:</p> <ul style="list-style-type: none"> <li>Year and month (at the top). In the example to the left, the year is 2012, then month is the 9th month (September).</li> <li>The days when recordings were made (highlighted in gray), and the date selected (blue number).</li> <li>The hour, minute, and second to search for. You can select a specific time, or click the search icon (magnifier) to begin playing recorded video on the date selected.</li> </ul>
<p>Play Controls</p>  <p>The Play Controls frame shows a video player interface with a 'Paused' status bar and playback controls: previous, play/pause, next, and full screen buttons.</p>	<p>The Play Controls icon buttons are used to play and/or position the video clip selected through the Date &amp; Time frame. The icons are similar to those used in most computer desktop media players.</p>
<p>CHANNEL SPLIT</p>  <p>The Channel Split frame shows five buttons representing different channel counts: 1, 4, 9, 10, and 16.</p>	<p>Click one of these buttons to select the number of channels displayed in the window (1 channel, 4 channel, 9 channels, etc.).</p>
<p>SITE ENTRY</p>  <p>The Site Entry button features the text 'Site Entry' and a globe icon.</p>	<p>Click the icon and the window to register the number of site will be displayed. When the network connection is done, SITE ENTRY button is converted to REMOTE SETUP Button.</p>
<p>REMOTE SETUP</p>  <p>The Remote Setup button features the text 'Remote Setup' and a gear icon.</p>	<p>Remote Setup Button. This button is converted from SITE ENTRY button when the network connection is done.</p>
<p>Window Control</p>  <p>The Window Control frame shows three colored buttons: red, yellow, and green.</p>	<p>Red – Close the window Yellow – Minimize the window Green – Toggles between normal size and full screen width</p>

Following is a 1-channel view captured from recorded video.

## SECTION 2: SEARCH AND PLAYBACK VIDEO



The BlackHawk for MAC application cannot be used to backup video clips or create screen captures.

# SECTION 3

## Remote Configuration Setup

The DVR system SETUP configuration can be controlled through BlackHawk for MAC. You must be logged into the DVR with Administrator privileges to use this feature. To access the DVR SETUP menus, click the **REMOTE SETUP** button, enter the password of your administrator login, then click the **LOGIN** button.

### WEB SETUP (ver 1.0.67)

PASSWORD:

DVR SETUP menus shown through REMOTE SETUP are nearly identical to those viewed at the DVR. Differences exist depending on the DVR model you connect to. SETUP screens shown below were captured from BlackHawk for MAC connected to an BLK-DH2 HD DVR.

- To move to another screen, click the respective tab.
- To close **REMOTE SETUP**, click the RED window control button.

**NOTE** *REMOTE SETUP is prohibited if the DVR local SETUP menu is open.*

### 3.5.1 DISPLAY setup

### WEB SETUP (ver 1.0.67)

DISPLAY

RECORD

DEVICE

STORAGE

SYSTEM

SECURITY

NETWORK

UPGRADE

INFORMATION

OSD

SEQUENCE

SEQUENCE-DWELL TIME

CHANNEL

NAME

COVERT

ON OFF

ON OFF

3 SECOND(S)

CH1

CH1

OFF

RELOAD

APPLY

- **OSD**: Enables the display of date - time and channel number on each video channel display.
- **OSD CONTRAST**: Adjust the character contrast on the screen.

## SECTION 3: REMOTE CONFIGURATION SETUP

- **SEQUENCE:** Setting for automatically switching the displayed video.
- **SEQUENCE DWELL TIME:** Sets the interval for automatically switching screens.
- **CHANNEL:** Name, Covert, Brightness, Contrast, Hue, Saturation

**NOTE** Channels with high definition (HD) cameras do not have settings for Brightness, Contrast, Hue, and Saturation.

### 3.5.2 Record

**WEB SETUP** (ver 1.0.67)

**DISPLAY** **RECORD** **DEVICE** **STORAGE** **SYSTEM** **SECURITY** **NETWORK** **UPGRADE** **INFORMATION**

CHANNEL: CH1

RECORD MODE: 1280 x 720

RESOLUTION: 1280 x 720

FRAME RATE: 5 FPS

QUALITY: LEVEL 5(H)

RECORDING: MOTION

SENSOR RECORDING: -

PRE RECORD: 1 MINUTE(S)

POST EVENT RECORD: 10 SECONDS(S)

AUDIO: ☒ ON ☐ OFF

SCHEDULE: NONE

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
SUN																								
MON																								
TUE																								
WED																								
THU																								
FRI																								
SAT																								

RELOAD APPLY

- **CHANNEL** setup
  - **RESOLUTION:** Set the resolution for the recordings. The set value applies to an channel selected.
  - **FRAME RATE:** Set the recording rate.
  - **QUALITY:** Set the image quality to one of 5 levels.
  - **RECORDING:** Set the recording mode. CONTINUOUS, SCHEDULE, MOTION
  - **SENSOR RECORDING:** Select the sensor number that is linked with recording channel.
  - **PRE RECORD:** Select to set pre recording mode.
  - **POST EVENT RECORD:** Sets the duration of the event recording after pre-record.
  - **AUDIO:** Select to set audio recording.



### 3.5.3 Device

**WEB SETUP** (ver 1.0.67)

DISPLAY RECORD **DEVICE** STORAGE SYSTEM SECURITY NETWORK UPGRADE INFORMATION

ALARM-OUT	1
SENSOR IN	---
MOTION ON	---
VIDEO LOSS ON	---
ALARM DURATION	5
ERROR ALARM	OFF
CONTROLLER	---
SPEED	9600
ID	0
PTZ	---
CHANNEL	CH1
CAMERA	---
SPEED	9600
ID	0
MOTION	---
CHANNEL	CH1
MOTION ZONE	FULL ZONE
MOTION SENSITIVITY	1
KEY TONE	<input checked="" type="radio"/> ON <input type="radio"/> OFF
REMOTE CONTROLLER ID	0
SENSOR	1
TYPE	OFF

RELOAD APPLY

- **ALARM OUT:** Set the Sensor In, Motion, and Video Loss for triggering alarm relay HDD Error and Video Loss can trigger beeping.
- **CONTROLLER:** Set the controller baud rate and ID.
- **PTZ:** Set the PTZ baud rate, protocol, and RS-485 network ID.
- **MOTION:** Setup the motion detection area and the sensitivity.
  - **SITE:** Select the channel
  - **MOTION ZONE:** FULL Zone or PARTIAL Zone
  - **MOTION SENSITIVITY:** 1~9 (High sensitivity level)
- **KEY TONE:** Sets the Key Tone On or Off.
- **REMOTE CONTROLLER ID:** Sets an ID number on the supplied remote control for its identification.
- **SENSOR TYPE:** Select the type of each sensor.

## SECTION 3: REMOTE CONFIGURATION SETUP

### 3.5.4 Storage

**WEB SETUP** (ver 1.0.67)

DISPLAY RECORD DEVICE **STORAGE** SYSTEM SECURITY NETWORK UPGRADE INFORMATION

OVERWRITE	<input checked="" type="radio"/> ON <input type="radio"/> OFF
RECORDING LIMIT	OFF
RECORDING LIMIT DAYS	30 DAY(S)
S.M.A.R.T.	
TEMPERATURE LIMIT	60°C 140°F
ALARM	<input checked="" type="radio"/> ON <input type="radio"/> OFF
BUZZER	<input checked="" type="radio"/> ON <input type="radio"/> OFF

RELOAD APPLY

- **OVERWRITE:** Check the box to continue recording by overwriting data when the hard disk becomes full.
- **RECORD LIMIT:** Select to limit the recording data storage period.
- **S.M.A.R.T.:** Sets the TEMPERATURE LIMIT of the Hard Disk to trigger the ALARM and BUZZER.

### 3.5.5 System

**WEB SETUP** (ver 1.0.67)

DISPLAY RECORD DEVICE **STORAGE** **SYSTEM** SECURITY NETWORK UPGRADE INFORMATION

DVR-ID	DVR
DATE FORMAT	YYYY/MM/DD
CLIENT ACCESS	<input checked="" type="radio"/> ON <input type="radio"/> OFF
NTP	OFF
PRIMARY SNTP SERVER	ntp.pool.ntp.org
SECONDARY SNTP SERVER	ntp.korea.net
TIME ZONE	GMT +9:00 (Seoul/Tokyo)
CONNECTION MODE	TIME
CONNECTION PERIOD	03:00 AM
SEND EMAIL	OFF
TRANSMISSION MODE	TEXT
IP NOTIFICATION	OFF
EVENT ALARM	OFF
MAIL BY S.M.A.R.T.	OFF
MAIL BY STATUS	ON
PERIOD	DAILY
	FIRST SUN 0 H
MAIL PORT	
SECURE OPTION	NONE
MAIL TO	
MAIL SERVER	
ID	
PASSWORD	
MAIL FROM	

RELOAD APPLY

- **DVR ID:** Name the DVR
- **DATE FORMAT:** Select the date display format.
- **CLIENT ACCESS:** Enable/Disable remote access through network client software.

- **NTP:** Set to synchronize the time using an NTP server.
  - **PRIMARY SNMP SERVER:** Input the primary NTP server address.
  - **SECONDARY SNMP SERVER:** Input the secondary NTP server address.
  - **TIME ZONE:** Select the time zone.
  - **CONNECTION MODE:** Select the connection mode to NTP time server.
- **SEND E-MAIL:** Enable/disable e-mail feature.
  - **TRANSMISSION MODE:** Select the mail transmission mode (TEXT or VIDEO).
  - **IP NOTIFICATION:** Enable/disable sending e-mail when the IP address is changed.
  - **EVENT ALARM:** Enable/disable sending e-mail reports when an alarm event is triggered.
  - **MAIL BY S.M.A.R.T.:** Enable/disable sending e-mail reports when S.M.A.R.T. is triggered
  - **MAIL BY STATUS:** Enable/disable sending periodical e-mail of the system status.
  - **MAIL PORT:** Mail port setting.
  - **SECURE OPTION:** Select the secure mail server connection. (SSL or TLS)
  - **MAIL TO:** Input the appropriate email address to enable sending e-mail reports
  - **MAIL SERVER:** Input the SMTP server name, the user ID and password.
  - **MAIL FROM:** Set the source e-mail address.

### 3.5.6 Network

**WEB SETUP** (ver 1.0.67)

DISPLAY	RECORD	DEVICE	STORAGE	SYSTEM	SECURITY	NETWORK	UPGRADE	INFORMATION
PORT						5445		
NETWORK AUDIO PORT						5446		
WEBPORT						80		
NETWORK TYPE						DHCP		
IP						192.168.75.70		
SUBNET MASK						255.255.255.192		
GATEWAY						192.168.75.1		
1st DNS						192.168.1.223		
2nd DNS						12.127.17.72		
DDNS						OFF		
DDNS SERVER1 NAME						bestddns.com		
DDNS SERVER1 INTERVAL						60 MINUTE(S)		
DDNS SERVER2 NAME								
DDNS SERVER2 ID								
DDNS SERVER2 PASSWORD								
DDNS SERVER2 INTERVAL						60 MINUTE(S)		
NETWORK STREAM						CH1		
RESOLUTION						640 x 360		
FRAME RATE						15 FPS		
QUALITY						LEVEL 5(H)		

[RELOAD] [APPLY]

- **PORT:** When connecting multiple DVRs to the network, set a unique port number.
- **NETWORK AUDIO PORT:** Display the network audio port (NETWORK PORT + 1).
- **WEB PORT:** Set a web server port number.
- **NETWORK TYPE**
  - **STATIC:** The address setting mode is manual. Input IP, Gateway, Subnet Mask, and DNS IP.

## SECTION 3: REMOTE CONFIGURATION SETUP

**WEB SETUP** (ver 1.0.67)

DISPLAY RECORD DEVICE STORAGE SYSTEM SECURITY NETWORK UPGRADE INFORMATION

PORT	5445
NETWORK AUDIO PORT	5446
WEBPORT	80
NETWORK TYPE	STATIC
IP	0.0.0.0
SUBNET MASK	0.0.0.0
GATEWAY	0.0.0.0
1st DNS	168.126.63.1
2nd DNS	168.126.63.2
DDNS	OFF
DDNS SERVER1 NAME	bestddns.com
DDNS SERVER1 INTERVAL	60 MINUTE(S)
DDNS SERVER2 NAME	
DDNS SERVER2 ID	
DDNS SERVER2 PASSWORD	
DDNS SERVER2 INTERVAL	60 MINUTE(S)
NETWORK STREAM	CH1
RESOLUTION	640 x 360
FRAME RATE	15 FPS
QUALITY	LEVEL 5(H)

RELOAD APPLY

- **DHCP:** The address setting mode is automatic.
- **DDNS:** Set whether to use DDNS service or not.
- **NETWORK STREAM:** Set the Resolution, Frame Rate, and the Quality.

### 3.5.7 Upgrade

**WEB SETUP** (ver 1.0.67)

DISPLAY RECORD DEVICE STORAGE SYSTEM SECURITY NETWORK UPGRADE INFORMATION

Model Name : HD-1620S  
Current Software : Ver 3.4.4\_12/26/2011

Choose File No file selected

UPGRADE

RELOAD APPLY

- **Browse:** Select BROWSE to locate the firmware file.
- **Upgrade:** Select UPGRADE to upgrade the firmware of the DVR.

### 3.5.8 Information

**WEB SETUP** (ver 1.0.67)

DISPLAY RECORD DEVICE STORAGE SYSTEM SECURITY NETWORK UPGRADE INFORMATION

MODEL NAME	HD-1620S
SOFTWARE VERSION	Ver 3.4.4_12/26/2011
STORAGE SIZE	485 GB
NETWORK TYPE	DHCP
IP ADDRESS	192.168.75.79
MAC ADDRESS	00:02:89:06:52:1F
DVR ID	DVR
REMOTE CONTROLLER ID	0

RELOAD APPLY